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PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(S) / APPELLANT(S): Fuller et al.

SERIAL NO.: 10/677,869

FILED: October 2, 2003

EXAMINER: Katherine A. Bareford

GROUP: 1762

FOR: CORRECTING DEFECTIVE KINETICALLY SPRAYED SURFACES

ATTY. DOCKET NO.: DP-307055

REPLY BRIEF

(*in compliance with MPEP § 1208 and 37 CFR §§ 41.37 and 41.41*)

Mail Stop – Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Subsequent to the Examiner's Answer dated December 23, 2005, Applicant now submits its Reply Brief. You are hereby authorized to charge our Deposit Account No. 08-2789, in the name of Howard and Howard & Howard Attorneys, P.C. for any necessary fees.

REMARKS

Claims 1-8 and 10-16 remain in the application with claims 1 and 10 in independent form. These claims are under appeal.

The Applicant exercises its right to submit the subject Reply Brief and address the Examiner's position as outlined in the Answer dated December 23, 2005.

Claims 1, 2, 4, 6, 7, 10, 11, 14, and 15 stand finally rejected under 35 U.S.C. §102(e) as being anticipated by Fuller et al. (United States Patent No. 6,743,468).

The Examiner's Position as outlined in the Answer

The Examiner maintains her position that the features of the rejected claims are taught by Fuller et al. More specifically, the Examiner maintains that the thermal spray operation of the spray apparatus taught by Fuller et al. is inclusive of a high velocity oxy-fuel combustion thermal spray process due to the teaching of Fuller et al. of the use of chamber 32 as a combustion chamber in combination with the de Laval nozzle. Relative to the chamber 32 of Fuller et al., the Examiner contends that the chamber 32 would "operate off of oxygen (from the air) and fuel (to provide the combustion)". Notably, the Examiner does not identify a fuel source within Fuller et al. Relative to the de Laval nozzle of Fuller et al., the Examiner contends that this nozzle provides supersonic (high velocity spray). The Examiner then concludes that these two components together, specifically the combustion chamber 32 and the de Laval nozzle, give a high velocity oxy-fuel combustion thermal spray.

The Applicant reiterates the arguments made in the Appeal Brief dated November 7, 2005. In addition, the Applicant respectfully asserts that there is no basis in Fuller et al. for the Examiner's position relative to the chamber 32. Element 32, identified by the Examiner as a "chamber", is merely an air heater (*see, in particular, column 3, line 36*). It is not a combustion chamber. There is no fuel source, such as propane and the like, necessary for combustion. More specifically, referring to column 3, lines 35-44, the air heater 32 merely heats the air or other gas (also referred to as the main gas) for the purpose of heating a high pressure air or gas flow and combining this flow with particles. This is a common purpose inherent to kinetic spray processes. Air or a gas is merely heated with component 32...*there is no combustion that takes place*.

Therefore, the air heater 32 disclosed within Fuller et al. is not a chamber that is capable of being used in combination with the de Laval nozzle to carry out a High Velocity Oxy-Fuel combustion thermal spray process as the Examiner contends. The thermal spray processes recited in independent claim 1 cannot be accomplished using the system, i.e., the hardware disclosed in Fuller et al. The Applicant recognizes that Fuller et al. does indicate, in passing, that the air heater 32 *may* include a combustion chamber. Even so, if a combustion chamber were to be included in component 32, it would merely be for the purpose of heating air or some other gas for the purpose of permitting Fuller et al.'s apparatus to oscillate between the kinetic spray mode and the thermal spray mode so as to be able to heat the particles to temperatures above their melt points during their passage through the nozzle.

In view of the above, the Applicant once again asserts that a High Velocity Oxy-Fuel combustion thermal spray process is not disclosed in Fuller et al. and that, as a result, each and every limitation is not disclosed in this single reference, as is required for a proper rejection under 35 U.S.C. § 102. The rejection of independent claim 1 and the claims which depend therefrom under 35 U.S.C. § 102(e) is improper and should be withdrawn.

As already set forth in the Appeal Brief, independent claim 10 includes all the limitations of independent claim 1 and the additional limitation of applying an additional kinetically sprayed surface over the repaired defect. Thus, the rejection of independent claim 10 and the claims which depend therefrom under 35 U.S.C. § 102(e) based on Fuller et al. is also improper and should be withdrawn for the reasons stated above with respect to the rejection of claim 1.

Claims 1-4, 6-8, 10-12 and 14-16 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over Brogan (United States Patent Application Publication No. US 2002/0110682 A1).

The Examiner's Position as outlined in the Answer

The Examiner maintains her position that the features of the rejected claims are suggested by Brogan. More specifically, the Examiner maintains that Brogan teaches that its spray methods can encompass either kinetic spraying or thermal spraying.

By this Reply Brief, the Applicant has no further additions relative to the Examiner's final rejection under 35 U.S.C. § 103(a). That is, the Applicant's arguments made in the Appeal Brief dated November 7, 2005 stand on their own and already directly address the Examiner's position as outlined in her Answer. Thus, the Applicant requests that the Board consider the arguments already set forth in the Appeal Brief previously filed.

In view of the reasoning set forth above and also in view of the reasoning set forth in the Applicant's Appeal Brief, the final rejection of all claims is improper and must be reversed. An early indication of such is earnestly solicited.

Respectfully submitted,

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Dated: February 21, 2006

CERTIFICATE OF EXPRESS MAILING BY "EXPRESS MAIL"

I hereby certify that the enclosed **Reply Brief to Examiner's Answer** is being deposited with the United States Postal Service as Express Mail, postage prepaid, in an envelope as "Express Mail Post Office to Addressee", **Mailing Label No. EV695475500US** and addressed to **Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450** on February 21, 2006.

Sandra L. Barry

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